

Honey bee Murder Mystery Game

As a member of the Toronto Beekeeper's Co-op I often have the opportunity to speak to people about bees. Everyone wants to know more about all the bees that are dying or colony collapse disorder(CCD) as it is more formally known. In response I've developed the Honey Bee Murder Mystery Game.

Age: 10-adult. **Time:** 30-50 minutes.

Intro ideas - 5 - 15 minutes

- Importance of pollination if not previously discussed or bees and co-operation(it's a co-operation game).
- Explain they are going to play a murder mystery game. That they will each take on the role of a character and talk to each other to discover what happened to the bees.

Hand out game cards - 5 minutes

- There are 16 game cards.
- The first page of game cards should be enough to play the game if it is a smaller group.
- Larger groups can be split into teams and compete to solve the mystery first.
- Each person should get one card. Give them a minute or two to get familiar with their character.

Playing the game - 15-20 minutes

They will then be asked to work as a group, sharing information with each other to try and solve the mystery.

Conclusion - 5-10 minutes

Have the students explain their conclusions. Explain it's a real phenomenon called CCD and answer any questions the game raises.

Solution

Groups using the full set of characters should be able to identify stress of transportation on bees, pest/diseases, queen genetics and poor nutrition for bees on monocrop farms as contributing factors, however, Nick and the pesticide company he represents should be seen as the primary culprit.

Thanks

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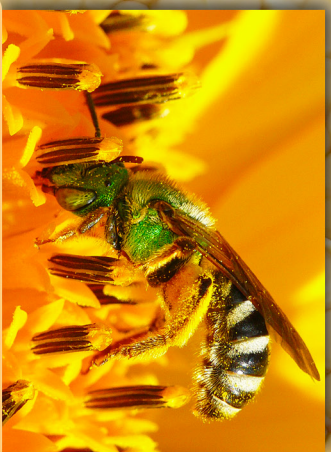
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You are Billy, a beekeeper. This year you bought new queens for your hives. You don't make much money from honey so you rented your hives to different farms to pollinate crops. When you left the soy farm the bees seemed fine. You were expecting a successful year. You also brought them to a canola farm. Shortly after you trucked the hives back home they all disappeared without a trace.



Your name is Kate. You keep bees in your backyard garden close to Billy. Your bees love it in your garden; they have many different kinds of wild flowers to visit all summer. After Billy brought his bees back from the factory farms you noticed more mites on your bees. You wish Billy wouldn't rent his bees out. You think it's stressful on the bees to move them around and it spreads mites and other bee diseases.



You are a sweat bee. You live in a field of wildflowers a few kilometres away from the canola farm. You don't like to visit the canola fields because there isn't much choice of things to eat. The farmer grows a monocrop. Unless you visit at the right time of year there aren't any flowers, and no food at all. You didn't see many of the honey bees this summer. Their hive must have been too far away from your wildflower patch..



You are a golden rod, a wild flowering plant. You grow along the side of the road not far from the canola farm. Lots of different kinds of bees came to visit you this summer. You're not sure if some of them were Billy's. You do remember some bees you met around the time the canola was flowering who seemed very confused.



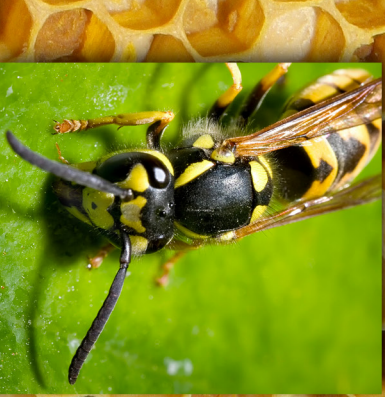
You are a varroa destructor, a little mite that feeds on honey bees. You were living in another beehive but moved into one of Billy's hives while his bees were in a soy bean field. They were nice bees to live with because they seemed tired all the time, and didn't spend much time cleaning you away. You wish they were still around.



You're Nick. You work for an international pesticide company. You sell genetically modified seeds. Your seeds have chemicals built into them to protect plants from pests. Your company has hired scientists to test your plants in the laboratory with bees. They found a visit to one of your plants did not a give the bees a high enough dose of the chemical to kill them instantly. You think your product is safe.



You are a canola plant. You remember when the bees came to visit. It was earlier in the season when you were flowering. The bees were friendly; it was nice to have some visitors since it gets lonely with nothing else but other canola plants around here. It's easy to remember them because they were the only bees who came to visit you this year.



You are a wasp. You live on Billy's property. You were planning to try and steal some of the honey from the bees for yourself. When they all disappeared you thought that it would be easy. In the end you left the honey alone because when you visited their hives you noticed there was something strange about the honey and you didn't want to eat it.



You're bee balm, a wild flower growing near the edge of the soy farm. You feel lucky to have survived this summer. Many of your brothers and sisters who sprouted near by didn't live very long. The only plants that survived on the land beside you were the soy plants. It was just unbelievable how many soy plants were growing there.



Your name is Ted. You're a canola farmer. Your family has farmed for generations. Your grandparents kept bees, raised animals, and grew many different veggies. In order to compete with new industrial farms you focused on growing only canola. Since starting to grow monocrops you had to use much more pesticides and fertilizers. You also had to start hiring beekeepers to bring their bees to pollinate your crop.



You're a bear. You live in the forest close to Billy's bee yard. It's true you do like to eat honey. You also find the bee larvae an excellent source of protein. You knew where the hives were. They smelled great. They would have been delicious, but you swear you didn't touch them. There is an awful electric fence protecting the bees. It stopped you from having dinner.



You are a cuckoo bee. You are a wild solitary bee. You live alone close to the soy farm. You met the honey bees while they were there. You visited the soy plants when their flowers first opened, but you don't remember much about the bees. You started to feel sick shortly after you got to the soy field. You never went back after that first visit.



Your name is Chris. You are a scientist. Billy noticed that his bees had sealed off the pollen they had brought back to the hive. Sealing pollen is strange behaviour for bees. Billy gave you some of his wax and pollen to test. Your analysis showed traces of pesticides on the pollen. You think the bees were trying to protect themselves by hiding it away.



Your name is Mary. You are a scientist doing research on bee genetics. You believe that more attention needs to be given to how queens are raised. You believe poorly raised queens may make the whole colony more vulnerable to pests and diseases.



Your name is Veronica. You're a neighbour of Billy's. You used to see some of his bees on your property. The bees seemed to mind their own business. They don't bother you and you have never been stung. You like seeing the bees flying around. You also really love tasting the honey Billy shares with you. He's a great neighbour.



Your name is Mai. You are a scientist studying water quality. You noticed chemicals accumulating in the waters near industrial farms. Some of these chemicals seem to break down very slowly. You are concerned about how this impacts the health of bees and other insects you see drinking this water.